

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number  
WO 2004/090467 A1

(51) International Patent Classification<sup>7</sup>: G01B 7/00,  
7/16, 5/016, 11/00

Bradley Stoke, Bristol, South Gloucestershire BS32 0DB (GB). COLLINGWOOD, David [GB/GB]; 1 Lawns Park, North Woodchester, Stroud, Gloucestershire GL5 5PP (GB). ACRES, Mark [GB/GB]; Highlands, 5 Upper Bradley Road, Wotton-under-Edge, Gloucestershire GL12 7DT (GB).

(21) International Application Number:  
PCT/GB2004/001552

(74) Agents: JACKSON, John, Timothy et al.; Renishaw PLC, Patent Department, New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR (GB).

(22) International Filing Date: 13 April 2004 (13.04.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

(26) Publication Language: English

[Continued on next page]

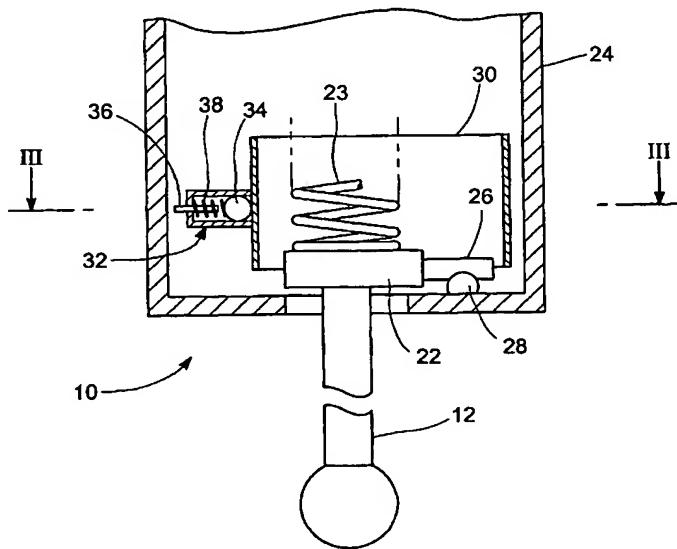
(30) Priority Data:  
0308149.4 9 April 2003 (09.04.2003) GB

(71) Applicant (for all designated States except US): RENISHAW PLC [GB/GB]; New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): FUGE, Jonathan, Paul [GB/GB]; 106 Guest Avenue, Emersons Green, Bristol, South Gloucestershire BS16 7EA (GB). CASHMORE, Robin, William [GB/GB]; 26 Lime Kiln Gardens,

(54) Title: PROBE FOR SENSING THE POSITION OF AN OBJECT



WO 2004/090467 A1

(57) Abstract: A probe (10) for a machine tool has a switch (32) or other sensor for connecting its battery power supply in response to movement of the probe. In a preferred embodiment, the switch responds to rotation of the probe in the machine tool spindle. The switch (32) is responsive to linear accelerations, but is mounted in the probe so as to respond also to the rotation. A circuit is provided to discriminate between the rotation and linear movements.



GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*